Work Orde June-24-13 1:59		103615		*103615*							Page 1				
Item ID: Revision ID:	D3953-9		A	Accept	*	N900	040	100	)* s	Setup Star	171	S1*	:		
Item Name:	GAS SPRI	NG WASHER								Stop	' *N	<b>S2</b> *			
Start Date: Required Date: Reference:	6/24/13 7/05/13	Start Qty: 40.00 Req'd Qty: 40.00				Cust Item 1 Customer:	ID:						. 1.		
Approvals:	Process	Plan: MLJ	Date: 13-06-75	Tooling:	<u> </u>	D	ate:		1	Run Star	171	R1*			
	QC:		Date:	SPC (Y/N):		D	ate:			Sto	" *N	R2*			
Sequence ID/ Work Center II	<b>D</b> .	Operation Description		Set Up/ Run Hou		Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp			
Draw Nbr	F	Revision Nbr										,			
D3953	C														
*100 *100* Hardinge Hardinge CNC Lath	ne Small	FOLIO R	S PER FOLIO FA855 & DWG EV: V:	0.00	<b>9</b> AS	13/0	X/26		46	- Ø_		-			
*110 * QC Quality Control		QC2- Inspect parts of	f machine FAI/FAIB	0.00	0AS)	13,	106126		46	Ø			• † • • • • • • • • • • • • • • • • • •		

DQA: Date:				$\sim$								
QA Closed:		Data			WORK ORDER NON-	-C(	ONFO	RMANCE / UPDA		a	-d-t	AEROSPACE
QA Closed.		Date:		]				-	VV	ork Order up	date only	<u> </u>
Work Orde	er:				DISPOSITION			A	AGAINST DE	PARTMENT	/PROCESS	
					Rework	1	Skid-tube Crosstube		rosstube		Water Jet	Engineering
Part N	No.				Scrap			<b>⊢</b>	mall Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is		Therr	noforming F	Finishing	1	re/Packaging	Other
NCR f	۷o				Suspected Unapproved	Large Fab Compo		mposite	e Supplier			
			,				<u> </u>					
Root				Desci	ription of work order update	ŀ	Initial	Action		Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descriptio	n	Date	Verification	QC Inspector
Design												
Doc/Data	_											
Equip/Tooling												
Handling/Pre												
Material												
Operator												
Offset/Setup Process												
Supplier												
Training	H	l I										
Transport		ŀ			ļ							
Unapproved												
			<u></u> i			FAI	ULT CAT	EGORY				1.
Landii	ng Gear	-			General							· · ·
	Bendin	g			Bend		Folio/P	rogram		Outside Dim	ensions [	Pressure/Forced
	Centre	Not Conce	ntric		BOM/Route		Grain	Ü		Over/Under	<b> </b>	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorrec	<b> </b>	Temperature/Cure
	Crimp/	Kink/Ripple	e/Wave		Burrs		Inspecti	on Incomplete/Unquali	ified	Part Lost/Mis	ssing	Weld
	Cuffs				Contamination			ions Incomplete/Unclea	<del>-</del>	Part Moved		Wrong Stock Pulled
	- Crushir	ıg			Countersink		Misalig	ned/off center		Positioned W	/rong	
,	Heat Tr	eat			Cut Too Short		Mislabe	led		Power Loss/S	Surge	Other
	Inspect	ion Strip in	Tube		Drawing		Misread					•
[	Marks/	Chatter			Drill Holes		Off-set					
	Turning	Sequence			Finish		Out of 0	Calibration				
	Wave/Twist in Tube				Fit/Function		Out of S	equence				

Work Order ID 103615 \*103615\* Page 2 June-24-13 1:59:23 PM Item ID: D3953-9 Accept Setup Start \*N900040100\* **Revision ID:** Item Name: GAS SPRING WASHER \*40\* Start Date: 6/24/13 **Start Oty: 40.00 Cust Item ID:** Required Date: 7/05/13 Rea'd Otv: 40.00 \*40\* Customer: Reference: Run Process Plan: Date: Tooling: Approvals: Date: Stop Date: SPC(Y/N): Date: Sequence ID/ Tool ID Operation Set Up/ Tool # Plan Accept Reject Reject Insp. Work Center ID Description Run Hours Code Oty **Qty** Number Stamp 120 OC8- Inspect parts - second check 0.00 13.6-26 46 A \*120\* 0.00 Memo **Ouality Control** Identify as per dwg & Stock Location: 0.00 130 \*120\* Packaging 0.00 Memo Packaging

140

QC21- Final Inspection - Work Order Release

0.00

\*140\*

Memo

0.00

Quality Control

MUJ 13-06-23 MUJ 13-06-23

DQA: Date:												"DAPT
QA Closed:		Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / UPDATE	W	ork Order uj	odate only	AEROSPACE
Work Orde	or:				DISPOSITION			AGAINS	T DE	PARTMENT	/PROCESS	
Part N					Rework Scrap		<u>:</u>	Skid-tube Crosstub		Pro	Water Jet d. Eng. Coor.	Engineering Quality
NCR No.				Use-as-is Suspected Unapproved			noforming Finishing Large Fab Composite	g	4	re/Packaging Supplier	Other	
Root			T	Desci	ription of work order update		Initial	Action		Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved												
	·-···					FAI	ULT CAT	EGORY				
. Landir					General		1		_	7	_	_
		ot Concer	ntric		Bend BOM/Route		Folio/P Grain	rogram		Outside Dim Over/Under	<u> </u>	Pressure/Forced Set-up
:	Cracks				Broken/Damage/Defect		Hardwa		$\vdash$	Part Incorred	<del> </del>	Temperature/Cure
		nk/Ripple	/Wave	$\vdash$	Burrs	$\vdash$	1	on Incomplete/Unqualified		Part Lost/Mi	ssing	Weld
	Cuffs			-	Contamination		4	ions Incomplete/Unclear	-	Part Moved	L	Wrong Stock Pulled
ŀ	Crushing			-	Countersink		1	ned/off center	$\vdash$	Positioned V		٦
-	Heat Trea		T L. :	$\vdash$	Cut Too Short	-	Mislabe			Power Loss/	Surge	Other
	Inspectio	· · · · · · · · · · · · · · · · · · ·	ıube	$\vdash$	Drawing		Misread					
ŀ	Marks/Cl			$\vdash$	Drill Holes		Off-set					
	Turning S	equence			Finish Fit/Function	<u> </u>	-i	Calibration				
1	IWave/Tw	ust in Tub	10	1 1	IFIT/FUNCTION		IOut of 9	equence				

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

June-24-13 1:59:23 PM

Work Order ID:

103615

Parent Item:

D3953-9

Parent Item Name:

GAS SPRING WASHER

**Start Date:** 6/24/13

Required Date: 7/05/13

Start Qty: 40.00

Required Qty: 40.00

Comments:

IPP RevA: New issue 09.10.13 DD verified by:EC 10.03.02 verified by:EC

IPP Rev:B as per dwg revC DD

27.759

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MDELRINR0.750 Delrin Round Bar 0.75"		Purchased	No	· · · ·		100	f	105.6540	0.05	2.105264	0AS 40	13/	X126
		•		<b>Location</b>		Loc Oty	Lo	c Code			9-89		
				MAT018 11618	33	105.654 4.8				<u></u>			1
				11727	73	4.665							
				11732 12178		0.94 27.49							:
•				12483	34	40							,

124957

DQA: Date:			_	WORK ORDER MON CONTROLLED AND A TOTAL ORDER								™ A DT		
QA Closed:		Date	:		WORK ORDER NON	-C(	ONFO	RMANCE / UF		Wa	ork Order up	odate only		AEROSPACE
			-		DISPOSITION						PARTMENT	· · · · ·		
Work Orde	er:			<del></del>		,					1			
					Rework			Skid-tube	Crosstube	_		Water Jet	-	Engineering
Part N	No				Scrap			Machining	Small Fab		4	d. Eng. Coor.	$\overline{}$	Quality
NCO A					Use-as-is		Therr	noforming	Finishing		Rec/Sto	re/Packaging	$\vdash$	Other
NCR f	NO				Suspected Unapproved			Large Fab	Composite			Supplier	<u> </u>	
Root				Desc	ription of work order update	1	Initial	Acti	on		Sign &			
Cause	Dat	e Step	Qty		or non-conformance	Ch	ief Eng	Descri	iption		Date	Verificatio	n	QC Inspector
Design		1												•
Doc/Data												ı		
Equip/Tooling														
Handling/Pre						l								
Material				į										
Operator									•					
Offset/Setup														
Process														
Supplier														
Training		İ												
Transport					·									
Unapproved			<u> </u>											
<del></del>						FA	ULT CAT	EGORY						
Landii	ng Gear				General		1				•			
	Bendi	_			Bend		1	rogram			Outside Dim	ensions	Ш	Pressure/Forced
	_	e Not Conce	entric	<u> </u>	BOM/Route		Grain				Over/Under	tolerance	Ш	Set-up
	Crack				Broken/Damage/Defect		Hardwa	re	]		Part Incorrec	et .		Temperature/Cure
		/Kink/Rippl	e/Wave		Burrs		Inspecti	on Incomplete/Und	qualified		Part Lost/Mis	ssing		Weld
	Cuffs			<u> </u>	Contamination	$\overline{}$	l .	ions Incomplete/U	nclear	_	Part Moved			Wrong Stock Pulled
	Crush	_			Countersink	_	_	ned/off center	ļ	$\neg$	Positioned W	_		
	Heat			<u> </u>	Cut Too Short	-	Mislabe		Ĺ		Power Loss/S	Surge		Other
	_	tion Strip in	1 Tube	_	Drawing	_	Misread							
		/Chatter		-	Drill Holes	$\vdash$	Off-set							
		ng Sequence			Finish	-		Calibration			-			
	Wave	Twist in Tu	be		Fit/Function	1	Out of S	equence						

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

DART AEROSPACE LTD	Work Order:	103615
Description: Gas Spring Washer	Part Number:	D3953-9
Inspection Dwg: D3953 Rev: C		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

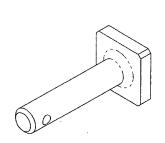
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.63	+/-0.030	-632	1		VERN	P410-12
Ø0.257	+0.010/-0.001	. 261	/		11	9
0.05	+0.030/-0.000	- 062	1		10	ч
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. m# ii 2 -						
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	CAS			40		

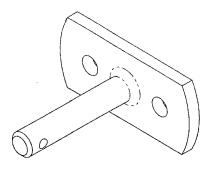
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Date:	13/06/26	Date:	13-6-26	Date:	N/A

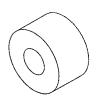
Rev	Date	Change	Revised by	Approved.
Α	09.10.22	New Issue	KJ , A	11
В	09.12.14	Dimension updated per Dwg Rev	KJ 😽	
			77	-7-7

H:	\FOI	RMS\Qual	lity Assuran	ce\approved	QA\FAI revD
_			•	, ,	











D3953-1 GAS SPRING BRACKET (FULL LID)

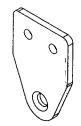
D3953-3 GAS SPRING STUD, LID

**D3953-5 GAS SPRING STUD, BASE** 

D3953-7 GAS SPRING SPACER D3953-9 GAS SPRING WASHER C











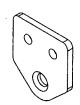
**D3953-11 GAS SPRING SPACER** 

D3953-13 GAS SPRING SPACER (FULL LID)

D3953-15 GAS SPRING BRACKET (SPUT LID)

D3953-17 GAS SPRING SPACER (SPLIT LID)

D3953-19 GAS SPRING BRACKET (SQUARE BASKET)



D3953-21 GAS SPRING BRACKET (SQUARE BASKET)

<u> </u>

С	CHAM (C6-2, B6-3, C6-4); (C7-2, C7-4); SECTION C	(SHT 1& 4); CSK CALLOUT WAS ; Q SYMM WAS Q SYM ABOUT -C REPOSITIONED TO B2-4 REQD; DRAFTING ERRORS	JPH	10.01.29
В	DIMENSIONS MIN/MAX F	0.05 MIN WAS 0.13, MULTIPLE REMOVED TOLERANCE ADDED. ISTALLING COTTER PIN AT NEXT	AJS	09.11.11
A	NEW ISSUE		AJS	09.07.27
REV.	· Di	ESCRIPTION	BY	DATE
DESIG	N AJS	DART AFROSPA	CFII	ח

DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	a	DRAWING NO.	REV. C
MFG. APPR.	E	D3953 <sub>SHEE</sub>	T 1 OF 4
APPROVED	47	TITLE	SCALE
DE APPR.	#	GAS SPRING LID COMPONENTS	NTS
DATE 10.0	1.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND COMPRENTING AND IS SUPPLIED ON THE CUPPERS CONDITION HOLD TO ME HAVE DOCUMENT AND THE STREET OF COMPRISED CONDITION OF THE PROPERTY OF THE	K THAT ET ES

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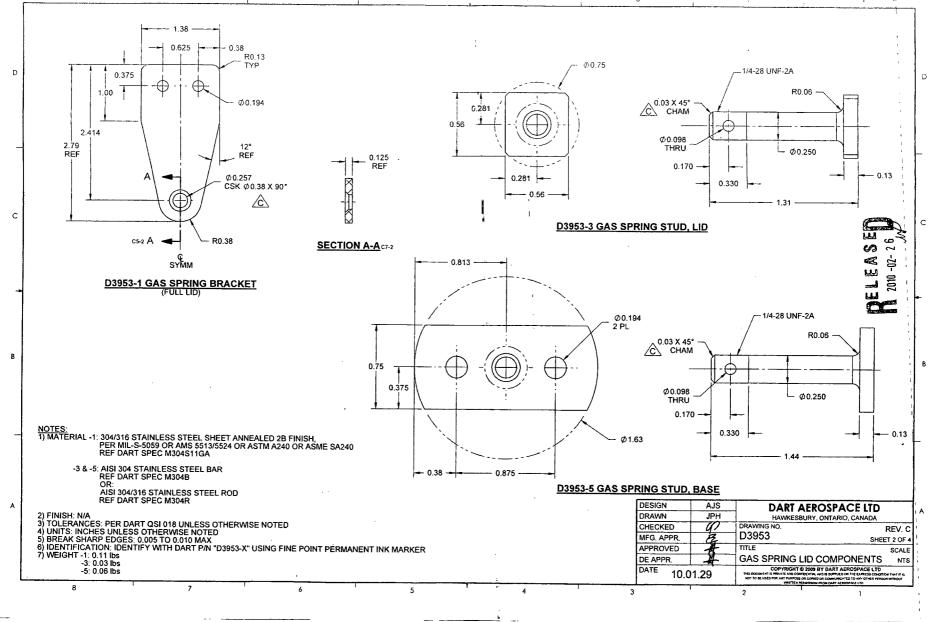
UNCONTROLLED Service

SUBJECT TO ACCUSAGE

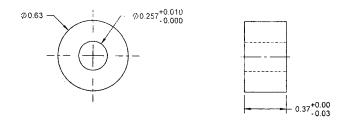
WITHOUT SHELLE

NO\_103615 MC

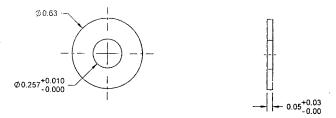
WORK ORDAR



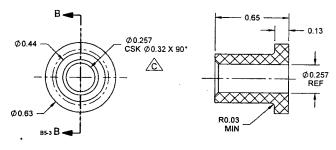
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## **D3953-7 GAS SPRING SPACER**

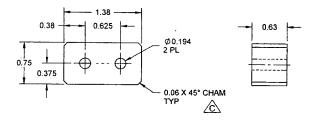


## **D3953-9 GAS SPRING WASHER**



**D3953-11 GAS SPRING SPACER** 

SECTION B-B B7-3



## **D3953-13 GAS SPRING SPACER**

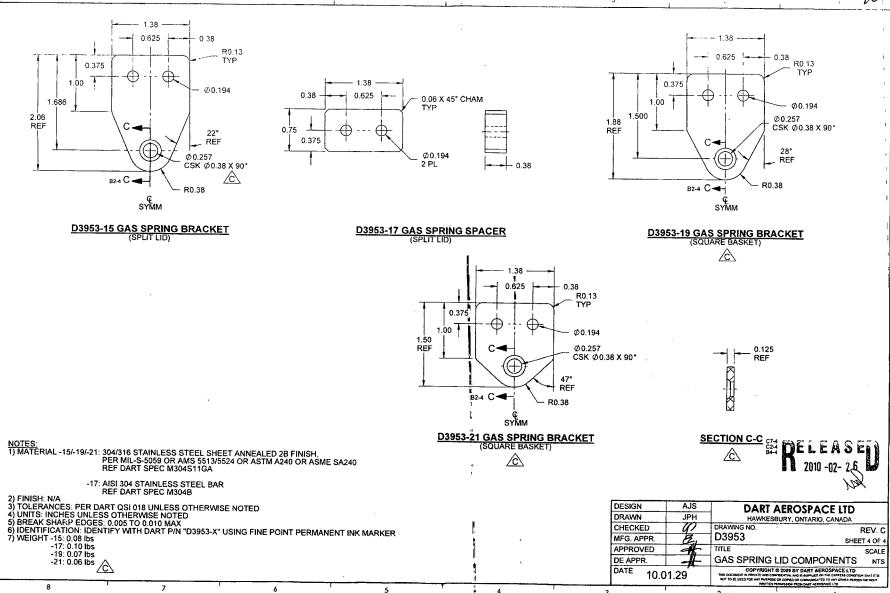
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	9	DRAWING NO.	REV. C
MFG. APPR.	8	D3953 SHEET 3 OF	
APPROVED	-	TITLE	SCALE
DE APPR.	#	GAS SPRING LID COMPONENTS	NTS
DATE 10.01.29		COPYRIGHT © 2009 BY DART AEROSPACE LTD THE DOCUMENT IS PRIMATE AND CONTROLITED, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS	

NOTES: 1) MATERIAL -7,-9 & -11: DELRIN II 150E OR ACETRON GP ACETAL, BLACK REF DART SPEC M-DELRIN-R

-13: AISI 304 STAINLESS STEEL BAR REF DART SPEC M304B

- 2) FINISH: N/A
  3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  4) UNITS: INCHES UNLESS OTHERWISE NOTED
  5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  6) IDENTIFICATION -13 ONLY: IDENTIFY WITH DART P/N "D3953-13" USING FINE POINT PERMANENT INK MARKER
  7) WEIGHT -7/-9/-11: < 0.01 lbs EACH
- -13: 0.17 lbs

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